



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/637,144	08/08/2003	Donald B. Gage	DC-05201	3411
33438 7590 02/07/2008 HAMILTON & TERRILE, LLP P.O. BOX 203518 AUSTIN, TX 78720			EXAMINER GIESY, ADAM	
			ART UNIT 2627	PAPER NUMBER
			NOTIFICATION DATE 02/07/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@hamiltontertile.com
seaton@hamiltontertile.com
tmunoz@hamiltontertile.com

Office Action Summary	Application No. 10/637,144	Applicant(s) GAGE ET AL.	
	Examiner Adam R. Giesy	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 10-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 10-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Appeal Brief

1. Upon further examination of the cited prior art references and due, in part to the remarks by Applicant in the Appeal Brief filed on 11/12/2007, the Examiner has hereby reopen prosecution. Therefore, the previous Final Office action has been vacated and a new Non-final Office action follows.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurobe et al. (hereinafter Kurobe – US Doc. No. 2006/0067190 A1) in view of Masaki et al. (hereinafter Masaki – US Pat. No. 6,526,014 B2) and further in view of Kaneda et al. (hereinafter Kaneda – US Pat. No. 6,404,707 B1).

Regarding claim 1, Kurobe discloses an information handling system comprising: processing components operable to generate information for storage on an optical medium (see Figure 1, elements 9, 11, and 13-16); an optical disk drive interfaced with the processing components and operable to process the information for writing to the optical medium (see Figure 1); a write strategy table having plural write strategies, each write strategy associated with one or more optical medium types (Figure 6); a laser associated with the optical disk drive and operable to illuminate the optical medium to

burn information onto the optical medium with a write strategy associated with the optical medium or to read information from the optical medium (Figure 1, element 5); and an OPC (Optical Power Calibration) engine interfaced with the write strategy table and the laser (see page 11, paragraph 0141), the OPC engine being operable to store the adjusted write strategy to a non-volatile medium for use in subsequent writes (see Figure 1, element 17a). Kurobe does not disclose test writing at distributed locations on the medium. Kurobe also does not disclose the use of a hard drive as a non-volatile medium to store write strategies on.

Masaki discloses an optical storage apparatus including a write strategy table (see Figure 6A, elements 190, 196, and 198) and an OPC engine that performs test writes and reads at plural distributed locations of the optical medium, the test writes having predetermined variations of the write strategy associated with the optical medium, the OPC engine adjusting the write strategy to write the generated information to the optical medium based on the quality of modulated signals read from the test writes at the distributed locations (see column 16, lines 31-65).

Kaneda discloses a media storage apparatus wherein a host computer (see Figure 6, element 9) stores a management table (element 800) with operating parameters for various drives in a multiple optical drive system which includes a write strategy and drive identification (see Figure 7). Kaneda shows that it is well known in the art of optical storage to be able to store drive related information including a write strategy for certain disc types outside of the optical drive for use on multiple optical drives.

Furthermore, Kurobe does not distinctly claim a hard drive being the non-volatile memory, however Kurobe does disclose having a memory with both a ROM and a RAM (see Figure 1, elements 17a and 17b respectively). It is well known in the art that a ROM memory is a non-volatile form of memory and therefore is an art recognized equivalent to a hard drive. It would have been an obvious matter of design choice to replace the ROM with a hard drive (as both are forms of non-volatile memory) since the applicant has not disclosed that using only a hard drive solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the use of a ROM as non-volatile memory storage (see Response to Arguments section below).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the multi-medium writing device as disclosed by Kurobe with the multi-zone test writing method as disclosed by Masaki and the storing of write strategies outside of the optical drive as disclosed by Kaneda, the motivation being to further improve the reliability of the ZCLV recording as disclosed by Kurobe across multiple forms of media and to be able to duplicate that strategy on all media types.

Regarding claim 2, Kurobe, Masaki, and Kaneda disclose all of the limitations of claim 1 as discussed in the claim 1 rejection above. Masaki further discloses an optical recording device in which the OPC engine test writes are to an inner diameter track, middle diameter track and outer diameter track of the optical medium (see Figure 12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the optical recording device as disclosed by Kurobe with the optical recording device that test writes to multiple designated disc circumferences as disclosed by Masaki, the motivation being to better configure the power settings of the optical recording laser to write on the various diameters of the optical disc.

Regarding claim 3, Kurobe, Masaki, and Kaneda disclose all of the limitations of claim 2 as discussed in the claim 2 rejection above. Masaki further discloses that variations of the write strategy comprise write power variations and wherein the OPC adjusts the write strategy to write the generated information to an average of the write power at each of the inner, middle and outer diameter tracks that provided a modulated signal having the least amplitude and jitter variations (see Figure 17).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the optical recording device as disclosed by Kurobe with the write strategy that uses an average of the test write power variations as disclosed by Masaki, the motivation being to better configure the power settings of the optical recording laser to write on the entire surface of the optical disc.

Regarding claim 6, Kurobe, Masaki, and Kaneda disclose all of the limitations of claim 2 as discussed in the claim 2 rejection above. Kurobe further discloses that the optical medium comprises a CD-RW disc (see page 1, paragraph 0006).

Regarding claim 7, Kurobe, Masaki, and Kaneda disclose all of the limitations of claim 1 as discussed in the claim 1 rejection above. Kurobe further discloses that the

system further comprises volatile memory interfaced with the optical disc drive and operable to store the adjusted write strategy for use on a subsequent write to an optical medium of the same type (see Figure 1, element 17b).

4. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurobe et al. (hereinafter Kurobe – US Doc. No. 2006/0067190 A1) in view of Masaki et al. (hereinafter Masaki – US Pat. No. 6,526,014 B2) and further in view of Kaneda et al. (hereinafter Kaneda – US Pat. No. 6,404,707 B1) and even further in view of Nadershahi (US Doc. No. 2004/0130993 A1).

Regarding claim 4, Kurobe, Masaki, and Kaneda disclose all of the limitations of claim 2 as discussed in the claim 2 rejection above. Both Kurobe and Masaki fail to disclose DVD-RW and DVD+RW optical disc formats.

Nadershahi discloses an optical device that performs OPC for many formats including DVD-RW (page 1, paragraph 0018).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the optical recording device as disclosed by the combination of Kurobe and Masaki (discussed above) with the OPC on several formats as disclosed by Nadershahi, the motivation being to allow for compatibility with many types of optical media.

Regarding claim 5, Kurobe, Masaki, and Kaneda disclose all of the limitations of claim 2 as discussed in the claim 2 rejection above. Both Kurobe and Masaki fail to disclose DVD-RW and DVD+RW optical disc formats.

Nadershahi discloses an optical device that performs OPC for many formats including DVD+RW (page 1, paragraph 0018).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the optical recording device as disclosed by the combination of Kurobe and Masaki (discussed above) with the OPC on several formats as disclosed by Nadershahi, the motivation being to allow for compatibility with many types of optical media.

5. Claims 10 and 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurobe et al. (hereinafter Kurobe – US Doc. No. 2006/0067190 A1) in view of Masaki et al. (hereinafter Masaki – US Pat. No. 6,526,014 B2).

Claims 10 and 13-20 are rejected for the same reasons as discussed in the previous Office Action, filed on 7/11/2007 (see Response to Arguments).

6. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurobe et al. (hereinafter Kurobe – US Doc. No. 2006/0067190 A1) in view of Masaki et al. (hereinafter Masaki – US Pat. No. 6,526,014 B2) and further in view of Nadershahi (US Doc. No. 2004/0130993 A1).

Claims 11 and 12 are rejected for the same reasons as discussed in the previous Office Action, filed on 2/21/2007 (see Response to Arguments).

7. Claims 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kurobe et al. (hereinafter Kurobe – US Doc. No. 2006/0067190 A1) in view of Masaki et al. (hereinafter Masaki – US Pat. No. 6,526,014 B2) and further in view of Stan (WO 2003/091935 A3).

Claim 21 is rejected for the same reasons as discussed in the previous Office Action, filed on 2/21/2007 (see Response to Arguments).

Response to Arguments

8. Applicant's arguments, see Appeal Brief, filed 11/12/2007, with respect to the rejection(s) of claim(s) 1-7 under U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art.

In the Appeal Brief filed on 11/12/2007, Applicant asserts that the Examiner failed to show all aspects of the claimed invention. Examiner, upon further consideration concedes that the previous Final Rejection did fail to show that a write strategy was stored on a hard drive. Examiner hereby cites Kaneda who clearly shows storing a plurality of write strategies (dependent upon the drive and disc type) for use on multiple optical recording drives.

Furthermore, Examiner notes that while claim 1 does recite a hard disk drive in the last limitation, that hard disk drive is not limited to be inside or outside of the optical drive itself. Therefore, Examiner also asserts that parallel drawn between the hard disk drive and the available ROM storage (both being non-volatile forms or memory/storage) for storing a write strategy or disc related information found within the optical drive is proper. Examiner recommends further limiting claim 1 to require the hard drive to be external to the optical drive as argued by Applicants in the Appeal Brief (see page 3, section VII-A) in addition to any further amendments to overcome the prior art.

9. Applicant's arguments filed in the Appeal Brief on 11/12/2007, with respect to claims 10-21 under U.S.C. 103(a) have been fully considered but they are not persuasive.

Applicant argues, on page 4 of the Appeal Brief, that neither Kurode nor Masaki discloses "averaging power settings found at plural distributed areas". Examiner agrees with this comment and further argues that claim 10 is not limited to the language found in the arguments for claims 10-17. Examiner notes that claim 10 recites "averaging the determined power setting for the locations to determine...". Examiner asserts that Masaki does, in fact, disclose averaging the determined power settings for the individual region in order to determine the power setting for that region (see Figure 17, step S3). Examiner recommends that the claim be further clarified to recite limitations that are being argued instead of the current limitations.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam R. Giesy whose telephone number is (571) 272-7555. The examiner can normally be reached on 8:00am- 5:30pm.

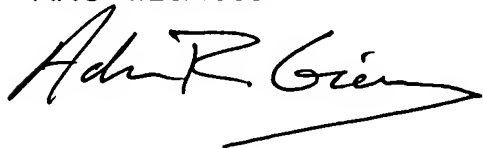
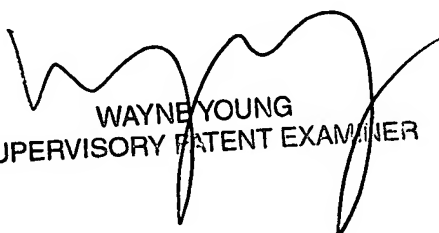
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne R. Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/637,144
Art Unit: 2627

Page 10

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ARG 1/28/2008

A handwritten signature in black ink, appearing to read "Adam R. Gien", with a long horizontal stroke extending to the right.A handwritten signature in black ink, appearing to read "Wayne Young", with a large, stylized loop at the end.

WAYNE YOUNG
SUPERVISORY PATENT EXAMINER